



AF / IFW / 3739
Reply under 37 CFR 1.116
EXPEDITED PROCEDURE -
Technology Center 3739

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/509,377 ✓

08/28/2000

Sergey Matasov

9553

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United States Patent and Trademark Office
Commissioner for Patents
Art Unit 3739
Examiner Mr. Leubecker, John P.
P.O. Box 1450, Alexandria VA 22313-1450
United States of America

EXAMINER
LEUBECKER, JOHN P
ART UNIT PAPER NUMBER

3739

DATE MAILED: September 1, 2004
By FAX and MAIL

Total pages including this cover sheet: 79

Mr. Leubecker,

Please, find attached the applicant's response to Office Action of June 3, 2004 concerning this application on 6 sheets.

Enclosures to Applicant's reply:

- | | |
|---|-----------|
| 1. Copy of Applicant's Communication dated September 3, 2003
in reply to the Office Action of June 9, 2003 | 28 sheets |
| 2. Postal advice of reception by USPTO of said Applicant's Communication | 1 sheet |
| 3. Confirmation of fax transmission to USPTO of said Applicant's Communication | 1 sheet |
| 4. Substitute specification and claims of the application 09/509,377 | 15 sheets |
| 5. Copy of the USPTO Notice of Non-Compliant Amendment of Dec. 23, 2003 | 2 sheets |
| 6. Copy of the Rospatent communication concerning the unpublication of SU 1522466 | 1 sheet |
| 7. The verified English translation of said Rospatent communication | 1 sheet |
| 8. Statement of amendments | 1 sheet |
| 9. Remarks/Arguments | 1 sheet |
| 10. Version with markings to show changes made | 17 sheets |
| 11. Drawing 5/5 | 1 sheet |
| 12. Table „Localization of amended claims support in the materials of the present application” | 3 sheets |

Faithfully Yours,

Dr. Sergey Matasov

BEST AVAILABLE COPY

According to last Office Action Summary, „Status”, item 1.

Examiner did not reply on the Communication filed on September 3, 2003 (see Enclosure 1), wherein my arguments were contained. Please, note that this Communication was sent in USPTO both by post (see Enclosure 2) and by fax (see Enclosure 3).

According to last Office Action, numbered paragraph 1.

Reference to Inventor's Certificate SU 1522466 in the first paragraph of the specification is withdrawn (see the amended specification in Enclosure 4).

According to last Office Action, numbered paragraph 2.

Concerning the amendment to the specification.

The amendments to the specification on page 3, line 12 filed on February 13, 2003 and September 3, 2003, are withdrawn.

Concerning the USPTO Notice of Non-Compliant Amendment of December 23, 2003.

Communication filed on September 3, 2003 was accompanied both with „Amendments to the claims” and with „Amendments to the specification”. The Office communication of December 23, 2003 required the correction and re-submission of the „Amendments to the claims” section only (see Enclosure 5). In this connection on January 19, 2004 I have filed only the corrected „Amendments to the claims” section.

According to last Office Action, numbered paragraph 3.

The specification is properly corrected.

According to last Office Action, numbered paragraph 4.

The mentioned claims are properly corrected and amended.

According to last Office Action, numbered paragraph 6.

- The claims 3 and 8 are withdrawn.
- The claims 5, 7 and 11 are amended.

According to last Office Action, numbered paragraph 8.

- The grammatical errors are corrected.
- The claim 7 describes the seal (13), but the claim 9 – the seal (29).
- The claim 19 is dependent from the preceding one – 18th. The erroneous reference is corrected.

According to last Office Action, numbered paragraph 10.

Claims 1-8, 10, 12, 14 and 20 are rejected „under 35 U.S.C. 102(b) as being anticipated by *Matasov*”. In the previous Office Action of June 9, 2003 (paper number 20), on which refers Examiner, there was asserted: „Applicant's inventor's certificate, which was published on July 15, 1989, is prior art with respect to this application” (page 3, lines 1-2).

Here are the arguments of groundlessness of this position:

- On the title-page of inventor's certificate SU 1522466 the date *July 15, 1989* is present, but this date relates to the following inscription: „Registered in the USSR State Register of inventions”. As is known, the registration of invention in the Register does not mean its print publication.
- The assertion about the publication of inventor's certificate SU 1522466 on July 15, 1989 is finally disproved by the Communication from the Federal Institute of Industrial Property of Russian Federation (Rospatent) (see Enclosure 6).
- The first disclosure of the subject matter of SU 1522466 took place on October 3, 1997 in the patent application P-97-190 (LV).
- The first publication of the subject matter of SU 1522466 took place on April 15, 1999 in the WO 99/17655.
- The first printed publication as a document itself of inventor's certificate SU 1522466 occurs only on March 31, 2003 in Online Public File Inspection EPOLINE (www.epoline.org). If there is known the other date, I kindly ask to indicate, where is possible to acquaint myself with it. According to MPEP 2128 „A reference is a „printed publication” if it is accessible to the public”.
- The inventor's certificate SU 1522466 as a document was included into the set of documents at filing of the application No. 09/509,377.

The claim 20 is amended. But at the same time in said application there is no support to Examiner's opinion that „the pressurized everting tube forms a „mechanism for introduction of an endoscopic tube which is a cylinder/piston unit connected to the pressure of gas or liquid”.

According to last Office Action, numbered paragraph 11.

Claims 1-8, 12 and 20 are rejected „under 35 U.S.C. 102(b) as being anticipated by Bob et al. (U.S. Pat. 5,259,364) for the reasons set forth in numbered paragraph 12 of the previous Office Action, paper number 20”.

In the numbered paragraph 12 of paper number 20 Examiner asserted: „As shown in Figure 2, the invaginator (24) would be gathered on the distal end (as the endoscope tube enters the anus (30)) by pleats (52) (col.5, lines 7-9)”.

The assertion about location of invaginator on the distal end of endoscope has no support in U.S. Pat. 5,259,364:

- In Figure 2 there is no endoscope's distal end (38) at all, at the same time the distal (relatively to anus (30)) part (2) of tube is represented without „pleats (52)“.
- In Figure 2 there is shown that the slit between means (70) and roller pairs (72) under no circumstances will not pass „pleats (52)“ „on the distal end“ of endoscope.
- Also in Figure 1 there is no any „pleats (52)“ on the distal end of tube (2).
- The extract cited by Examiner had no connection with the „gathering of invaginator (24)“ and with the „pleats (52)“. Please, note that the U.S. Pat. 5,259,364 does not contain any data about gathering of „invaginator (24)“ at all.

In the U.S. Pat. 5,259,364 there is unambiguously stated:

- *“supply portion is disposed in a pressure chamber”* (claim 4).
- *“The rearward, in FIG. 2 lower end of the supply portion 52 is attached to the rear wall of pressure chamber 50.”* (col. 5, lines 7-9).

These citations demonstrate the fundamental differences between compared invagimators:

- the supply portion (52) of invaginator according to U.S. Pat. 5,259,364 is disposed in the chamber (50) and is attached to it.
- the invaginator (23) according to the present application is attached to the endoscope tube (3) and is disposed on it.

These differences give the following results:

- the supply portion (52) of invaginator according to U.S. Pat. 5,259,364 is always located in the chamber (50).
- the invaginator (23) according to present application moves into the colon on the distal part of endoscope tube (3).

In the numbered paragraph 12 of paper number 20 there was asserted: *„As to claims 2, 3 and 8, pleats (52) form a compact hollow cylinder which defines a gap (note a space between pleats and endoscope tube in Figure 2), that is maintained under working pressure (col.5, lines 18-22)“.*

On the Figure 2, proposed by Examiner, the space (68 and 44) is formed solely by fluid pressure, and in the U.S. Pat. 5,259,364 on col.3, lines 30-36 is said: *„It is possible to apply fluid pressure to the annular space between the inner portion of the hollow member and the endoscope tube during introduction. Frictional engagement with an undesirably high pressing force between the inner portion of the hollow member and the outer circumference of the endoscope tube can be avoided in this manner“.*

Examiner mistakenly considered that the present application also comprises a „fluid“ solution of the problem of „frictional engagement“:

- „working pressure maintains gap 25“ (Office Action of November 20, 2002);
- „the working pressure is applied to gap 25“ (Office Action of June 9, 2003, paragraph 4 (b)).

There is no any support to these assertions: the seal (29) insulates the gap (25) from the cavity (14) with working pressure (see English translation of WO 99/17655, page 5 lines 11-12).

My solution of the problem of „frictional engagement“ – invaginator (23) in the shape of a compact hollow cylinder having a gap (25) with endoscope tube (3), the cylinder *“is formed of a crumpled and tightly compressed in longitudinal and transverse directions short layers of different forms of an eversible thin-walled tube placed at different angles with the longitudinal axis of an endoscopic tube”* (see English translation of WO 99/17655, page 3 lines 23-26).

In the U.S. Pat. 5,259,364 there is not a word about compact cylinder with a gap:

- there are no terms *“compact”*, *“cylinder”*, *“formed”* and word-combinations *“compact cylinder”*, *“compact hollow cylinder”*;
- there are no analogues to Examiner's phrase *“pleats (52) form a compact hollow cylinder”*;
- there are no analogues to Examiner's assertion that *“cylinder... define a gap”*;
- the supply portion (52) on the Figure 2, indicated by Examiner, is represented by a wavy line. Hollow cylinders are represented by straight lines – see, for example, the invaginator (23) on Figures 1c, 1e, 1f of the present application.

Thus:

- In the U.S. Pat. 5,259,364 the space (68, 44) is formed by fluid pressure.
- In the present application the gap (25) is ensured by molding (forming) of eversible tube.

In the numbered paragraph 12 of paper number 20 there was asserted: *„As to claim 4, the distal end (38) of the endoscope tube encloses a camera and is thus inherently sealed”*.

In the claim 4 mentioned by Examiner, concerns the separate removable element – the seal (29) between an endoscope tube and unverted end of invaginator. In the amended Claims about this seal is said in claim 6.

In the numbered paragraph 12 of paper number 20 there is a note: *„As to claim 5, note shell (50).*

Please, note that the pressure chamber (50) according to the U.S. Pat. 5,259,364 neither by construction nor by functionally have nothing common with the shell (22) according to the present application:

- in the chamber (50) the means (70, 72) are disposed,

- the chamber (50) is not introduced in the rectum, but is situated outside: *“At its rear end, the turned back portion 26 is connected to a stiff abutment ring 28 supported on the anus 30 from the outside”* (see U.S. Pat. 5,259,364 col. 4, lines 14-16),
- to the chamber (50) the uneverted end of invaginator (24) is coupled.

The shell (22) according to the present application, in contrast to the chamber (50):

- is the tube-sheath and the conductor of invaginator (23) along the rectum,
- is coupled with the everted end of invaginator (23).

In the numbered paragraph 12 of paper number 20 there is a note: *„As to claims 6 and 7, the endoscope tube (2) inherently comprises an outer protective sheath which meets the limitation of a preservative”.*

Please, note, that:

- The preservative (26) united with the tip (6) is removable by definition, separate from endoscope tube (3), disposable element. Therefore elements (26) and (6) could not be equated with an *“outer protective sheath”* of endoscope tube (3) which is protected by said elements.
- The *“outer protective sheath”* of endoscope tube (2) according to the U.S. Pat. 5,259,364 is not preservative – it is inherent from the tube (2) as the skin is inherent from cellular tissues and muscles.
- The U.S. Pat. 5,259,364 does not comprise a preservative of the *“outer protective sheath”* of endoscope tube (2).

In the numbered paragraph 12 of paper number 20 there is a note: *„As to claim 9, note seal (58)”.*

Please, direct the attention that:

- In the U.S. Pat. 5,259,364 there are no seals of endoscope tube which isolate the cavity of the everted part of invaginator.
- In the U.S. Pat. 5,259,364 the seal (58) and the recess (40) isolate the cavity (68, 44) of the uneverted part of invaginator.

In the numbered paragraph 12 of paper number 20 there is a note and assertion:

- *„As to claim 11, please note a tip (38)”.*
- *„As to claim 12, a protective glass is inherent since a camera for viewing is located in the tip (38)”.*

The head piece (38) according to the U.S. Pat. 5,259,364 coupled with glass of objective and glass of lighters is really inherent to an endoscope tube (2) like a head is inherent to a body.

The tip (6) according to the present application together with the protective glass (33) is removable, separate from endoscope tube (3) as hat from head, disposable element.

According to last Office Action, numbered paragraph 11:

In numbered paragraph 11 is asserted: „As to claim 20, the pressurized everting tube forms a „mechanism for introduction of an endoscopic tube which is a cylinder/piston unit connected to the pressure of gas or liquid”.

The claim 20 is amended. However the opinion that invaginator forms a cylinder/piston unit does not have support in the specification of the present application.

According to last Office Action, numbered paragraph 13.

The claim 16 is rejected „under 35 U.S.C. 103(a) as being unpatentable over Matasov (SU 1522466) in view of Wilk et al. (U.S. Pat. 5,396,879) and further as being unpatentable over Bob et al. in view of Wilk et al. for the reasons set forth ”.

The rejection of claim 16 over SU 1522466 in view of U.S. Pat. 5,396,879 is invalid as SU 1522466 is the component part of the present application – see the reply according to the paragraph 10.

The rejection of claim 16 over U.S. Pat. 5,259,364 in view of U.S. Pat. 5,396,879 is invalid as U.S. Pat. 5,259,364 has no common features with claims 1, 2, 3, 7, 8 of the Claims filed on September 3, 2003.

According to last Office Action, numbered paragraph 14.

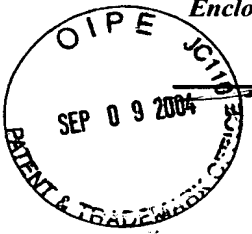
Examiner asserts, that applicant provided no arguments. It is not the case. About the Communication of September 3, 2003 (see Enclosure 1), where my arguments were cited, Examiner for some reason does not mention in his action of June 3, 2004. Please, note that this Communication was sent in USPTO both by post (see Enclosure 2) and by fax (see Enclosure 3).

In order to make easier Examiner's work, herewith is enclosed the table of support for the amended claims (see Enclosure 12).

Application/Control Number: 09/509,377
Enclosure 5 to Applicant's reply of Sept. 1, 2004

Page 1

Reply under 37 CFR 1.116 –
EXPEDITED PROCEDURE –
Technology Center 3739



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,377	08/28/2000	Sergcy Matasov		9553

7590 12/23/2003
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EXAMINER

LEUBECKER, JOHN P

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

Paper No.

Notice of Non-Compliant Amendment (37 CFR 1.121)

The amendment document filed on 9/13/03 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121, as amended on June 30, 2003 (see 68 Fed. Reg. 38611, Jun. 30, 2003). In order for the amendment document to be compliant, correction of the following item(s) is required. **Only the corrected section of the non-compliant amendment document must be resubmitted (in its entirety), e.g., the entire "Amendments to the claims" section of applicant's amendment document must be re-submitted.** 37 CFR 1.121(h).

THE FOLLOWING CHECKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
- ☐ A. Amended paragraph(s) do not include markings.
 - ☐ B. New paragraph(s) should not be underlined.
 - ☐ C. Other _____
- ☐ 2. Abstract:
- ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
 - ☐ B. Other _____
- ☐ 3. Amendments to the drawings: _____
- ☒ 4. Amendments to the claims:
- ☒ A. A complete listing of all of the claims is not present. claims 19 + 20 are missing.
 - ☐ B. The listing of claims does not include the text of all claims (including withdrawn claims)
 - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified.
 - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
 - ☒ E. Other: Amended claims have not been underlined or bracketed.

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP Sec. 714 and the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/officeflyer.pdf>.

If the non-compliant amendment is a **PRELIMINARY AMENDMENT**, applicant is given ONE MONTH from the mail date of this letter to supply the corrected section which complies with 37 CFR 1.121. Failure to comply with 37 CFR 1.121 will result in non-entry of the preliminary amendment and examination on the merits will commence without consideration of the proposed changes in the preliminary amendment(s). This notice is not an action under 35 U.S.C. 132, and this **ONE MONTH** time limit is not extendable.

If the non-compliant amendment is a reply to a **NON-FINAL OFFICE ACTION** (including a submission for an RCE), and since the amendment appears to be a *bona fide* attempt to be a reply (37 CFR 1.135(c)), applicant is given a TIME PERIOD of ONE MONTH from the mailing of this notice within which to re-submit the corrected section which complies with 37 CFR 1.121 in order to avoid abandonment. **EXTENSIONS OF THIS TIME PERIOD ARE AVAILABLE UNDER 37 CFR 1.136(a).**

If the amendment is a reply to a **FINAL REJECTION**, this form may be an attachment to an Advisory Action. **The period for response to a final rejection continues to run from the date set in the final rejection**, and is not affected by the non-compliant status of the amendment.

Lisa Fulton
Legal Instruments Examiner (LIE)

(703) 308-2195
Telephone No.

05/07 2004 16:17 FAX

001



РОССИЙСКОЕ АГЕНТСТВО
ПО ПАТЕНТАМ И ТОВАРНЫМ ЗНАКАМ
(РОСПАТЕНТ)

ФЕДЕРАЛЬНЫЙ ИНСТИТУТ
ПРОМЫШЛЕННОЙ СОБСТВЕННОСТИ

Берсжковская наб., 30, корп. 1, Москва, Г-59, ГСП-5, 123995
Телефон 240 60 15. Телекс 114818 ПДЧ. Факс 243 33 37

Motasov Sergey A.

RANKA Dambis 7/1-55
Riga, LV-1048
LATVIA

На № _____ от _____
(21) Наш № 4162-8-295
05.07.04

При перетиске просим ссылаться на номер заявки и
сообщить дату получения данной корреспонденции

Касается авт. св-ва № 1522466

Копия: USPTO

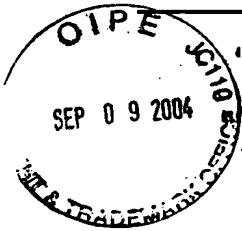
Уважаемый Сергей Александрович!

Сообщаем Вам, что авторское свидетельство СССР № 1522466
(з-ка 2657091/13), зарегистрированное как не публикуемое в БИ № 42-89, на данный
момент является не публикуемым, т.е. публикации описания изобретения авторского
свидетельства не было в официальном бюллетене Российского агентства по патентам и
товарным знакам, ныне - Федеральной службы по интеллектуальной собственности,
патентам и товарным знакам.

Зам. зав. отделом подготовки
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И.В. КОРОБКО

Исп. О.В. Колоскова
Тел. 240-15-80



Total : 28 sheets
Originals are sent by mail
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09/509,377	08/28/2000	Sergey Matasov		9553

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P.O. Box 1450, Alexandria VA 22313-1450
United States of America

EXAMINER	
LEUBECKER, JOHN P	
ART UNIT	PAPER NUMBER
3739	

DATE MAILED: September 3, 2003

Please, find attached the reply on the Office Action of June 9, 2003 concerning this application.

Enclosed:

1. Copy and certified English translation of the Official Bulletin of the State Committee of Inventions and Discoveries at the USSR SCST No. 42 from November 15, 1989 4 sheets
2. Corrected drawing 4/4 3 copies
3. Substitute specification and claims of the application 09/509,377:
 - amended page 3 1 sheet
 - amended page 9 1 sheet
4. Statement of amendments 2 sheets
5. Remarks/Arguments 1 sheet
6. Version with markings to show changes made 2 sheets

Faithfully Yours,

Sergey Matasov, M.D.

Application/Control Number: 09/509,377
Art Unit: 3739

Page 2

According to item 1.

Thank You for the advice. I have consulted the US registered patent attorney and the European patent attorney. They affirm, that the main problem is in the infringement of 35 U.S.C. 102 (b) at granting of US Patent 6,485,409 (Voloshin et al.).

According to item 2.

Subject of discussion:	Examiner on June 9, 2003:	Applicant on September 3, 2003:
Status of the SU Inventor's Certificate No.1522466.	<i>"... Applicant's inventor's certificate, which was published on July 15, 1989, is prior art with respect to this application ".</i>	<p>The statement of Examiner about publication of SU Inventors Certificate No. 1522466 on July 15, 1989 does not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none">• On February 13, 2003 Examiner received the certificated copy and the English translation of SU Inventors Certificate No. 1522466, which has a stamp "For office use only".• In the Official Bulletin of the State Committee of Inventions and Discoveries at the USSR State Committee of Science and Engineering No. 42 from November 15, 1989 is said, that the inventors certificates from No. 1522442 till No. 1523037 are not to be published (see Enclosure No.1).• The SU Inventors Certificate No. 1522466 was published after October 3, 1997 (see PCT Gazette 15/1999 from April 15, 1999, publication WO99/17655) and therefore is not prior art, but the component part of this application.

According to item 3.

Thank You for the approval of proposed drawing. Corrected drawing is enclosed (see Enclosure No.2)

According to item 4 (a).

Thank You for the observation. The dot is applied. The newly added sentences on page-3 are amended (see Enclosure No. 3).

Application/Control Number: 09/509,377
 Art Unit: 3739

Page 3

According to items 4 (a) and (b). (Repeatedly, for the first time in my letter from February 13, 2003).

Subject of discussion:	Examiner:	Applicant on September 3, 2003:
Examiner's statement concerning the including in the specification of new subject matter: <i>"the working pressure is applied to gap 25"</i> .	<ul style="list-style-type: none"> • <i>"the working pressure keep the gap 25"</i> (Office Action from November 20, 2002) • <i>"working pressure is applied to gap 25"</i> (Office Action from June 9, 2003) • <i>"the newly added sentences on page 3 ... are indefinite as to meaning"</i> (Office Action from June 9, 2003) 	<p>The statements of Examiner <i>"the working pressure keeps the gap 25"</i> and <i>"the working pressure applied to gap 25"</i> do not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none"> • In my application on page 3 and page 5 there is no and could not be the statement of Examiner. • Examiner has at first distorted (<i>"the working pressure keeps the gap 25"</i>, <i>"the working pressure applied to gap 25"</i>) the subject matter of claim 3 (8), and then begin to allege, that this (distorted) subject matter was not in the specification as originally filed. • The working pressure exerts influence upon all the elements, which are limiting its cavity and, as a result, presses the uneverted part of invaginator to the endoscopic tube. The problem of gap's maintaining exists for all the endoscopes, comprising an invaginator (see page 1, lines 12-15, 36-40 of the application PCT/LV98/00006). • US Patent 5,259,364 (Bob et al.) declares the maintaining of gap by means of pressure. The pressure is forced simultaneously into two cavities: into the chamber (42) of the everted part of invaginator and into the gap space (44) between the invaginator (32) and endoscopic tube (2). • In my application the working pressure is introduced only into one cavity (14). • In my application the working pressure into the gap (25) – that is the cavity between invaginator and endoscopic tube - is not feeded. It is inadmissible. The gap (25) is kept by the invaginator formed in a hollow cylinder (23), which has a definite compactness. The working pressure in cavity (14) is not able to grasp the compact cylinder (23), in other words - to

		<p>liquidate its gap (25) with the endoscopic tube (3).</p> <ul style="list-style-type: none">• The real subject matter of claims 3 and 8 was fully and clearly described in the application at the time it was filed. Please note the application PCT/LV98/00006:• page 3 lines 18-19 and 23-26;• page 5 lines 7-9;• page 7 lines 38-40;• page 9 lines 11-13;• page 10 lines 1-3;• Fig. 1 c, 1 e, 1 f;• Abstract, lines 2, 3.
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Herewith I propose the correction of lines 15-19 on page 3, where the mentioning of pressure is excluded:
The stability of diameters depends on the compactness of the cylinder. In one of the embodiments the definite compactness of cylinder ensures the gap with endoscopic tube during their joining and in the process of invagination, in the other – only during the joining. There are possible also the interim variants of embodiments.

According to item 5.

Concerning claim 1. The amended claim looks like as follows:

1. *An endoscope, comprising an invaginator which is a thin-walled tube, compactly placed on the distal part of an endoscopic tube in the shape of small layers and/or pleats.*

Concerning claim 2. The amended claim looks like as follows:

2. *The endoscope according to claim 1, wherein said invaginator is formed in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube.*

Concerning claims 3, 5, 7, 8, 10, 16 and 17. Thank You for the proposals. They are accepted.

According to item 7. (Repeatedly, for the first time in my letter from February 13, 2003).

Subject of discussion:	Examiner on June 9, 2003:	Applicant on September 3, 2003:
Claims 3 and 8 and description of their subject matter in the specification.	<i>"Claims contains subject matter which was not described in the specification in</i>	<p>The statements of Examiner "the working pressure keeps the gap 25" and "the working pressure applied to gap 25" do not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none">• Examiner has at first distorted ("the working pressure keeps

	<p><i>such a way ... "</i></p>	<p><i>the gap 25", "the working pressure applied to gap 25") the subject matter of claim 3 (8), and then begin to allege, that this (distorted) subject matter was not described in the specification in comply with the 35 U.S.C. 112, first paragraph.</i></p> <ul style="list-style-type: none">• In my application there is no and could not be the description of subject matter, distorted by Examiner.• The working pressure, which exerts influence upon all the elements limiting its cavity, presses the uneverted part of invaginator to the endoscopic tube. This problem is typical for all the endoscopes, comprising an invaginator (see page 1, lines 12-15, 38-41 of the application PCT/LV98/00006).• US Patent 5,259,364 (Bob et al.) declares the solving of this problem by means of pressure, which is forced not only into the chamber (42) of the everted part (26) of invaginator, but also into the gap space (44) between the invaginator (32) and endoscopic tube (2).• In my application the working pressure into the cavity (25) is not feeded. It is inadmissible. The gap (25) is kept by the invaginator formed in a hollow cylinder (23), which has a definite compactness. The working pressure in cavity (14) is not able to grasp the compact cylinder (23), in other words - to liquidate its gap (25) with the endoscopic tube (3).• In my application the real subject matter of claims 3 and 8 was fully and clearly described in the application at the time it was filed. Please note the application PCT/LV98/00006:<ul style="list-style-type: none">• page 3 lines 18-19 and 23-26;• page 5 lines 7-9;• page 7 lines 38-40;• page 9 lines 11-13;• page 10 lines 1-3;• Fig. 1 c, 1 e, 1 f;• Abstract, lines 2, 3.
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Herewith I propose the correction of lines 15-19 on page 3, where the mentioning of pressure is excluded: *The stability of diameters depends on the compactness of the cylinder. In one of the embodiments the definite compactness of cylinder ensures the gap with endoscopic tube during their joining and in the process of invagination, in the other – only during the joining. There are possible also the interim variants of embodiments.*

According to item 9. Thank You for the observations. They are accepted.

Concerning claim 3. The amended claim looks like as follows:

3. *The endoscope according to claim 2, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.*

Concerning claim 8. The amended claim looks like as follows:

8. *The endoscope according to claim 7, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.*

Concerning claim 13. The amended claim looks like as follows:

13. *The endoscope according to claim 12, wherein a cavity of said tip communicates with a cavity of intestines.*

Concerning claim 15. The claim 15 is withdrawn.

Concerning claim 16. Thank You for the observation. The amended claim looks like as follows:

- *The endoscope according to any of claims 1, 2, 3, 7, 8, wherein the endoscopic tube further comprises a distal drives of traction lines, bending its distal end, which are cylinder-piston units, connected to the pressure of gas or liquid.*

Concerning claim 17. The claim 17 is withdrawn.

Concerning claim 18. The subject matters of this claim are following:

1. *the biopsy forceps, which are the flexible hermetic tube,*
2. *the piston of biopsy channel, which is placed on the distal end of the flexible hermetic tube.*

These subject matters are illustrated on Fig. 4d under the numbers 63-68 and described in the specification on:

- page 4, lines 13-16;
- page 5, lines 28-30;
- page 6, lines 38-43;
- page 8, lines 17-22.

Concerning claim 19. Thank you for the observation. The amended claim looks like as follows:

- *The endoscope according to claim 16, further comprising a distal drive of traction line of a cutters of said biopsy forceps.*

Application/Control Number: 09/509,377
Art Unit: 3739

Page 7

According to item 11.

Subject of discussion:	Examiner on June 9, 2003:	Applicant on September 3, 2003:
The status of SU Inventors Certificate No.1522466.	"Claims 1, 2, 4-7, 9-12, 14 and 20 are rejected under 35 USC 102 (b) as being anticipated by Matasov"	<p>The statement about publication of SU Inventors Certificate No. 1522466 on July 15, 1989 does not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none">• On February 13, 2003 Examiner received the certificated copy and the English translation of SU Inventors Certificate No. 1522466, which has a stamp "For office use only".• In the Official Bulletin of the State Committee of Inventions and Discoveries at the USSR State Committee of Science and Engineering No. 42 from November 15, 1989 is said that the inventors certificates from No. 1522442 till No. 1523037 are not to be published (see Enclosure No.1).• The SU Inventors Certificate No. 1522466 was published after October 3, 1997 (see PCT Gazette 15/1999 from April 15, 1999, publication WO99/17655) and therefore is not prior art, but the component part of this application.• Examiner has greatly distorted the contents of the SU Inventors Certificate No. 1522466, but its status (as the component part of my application) excludes the necessity of discussion.

According to item 12. (Repeatedly, for the first time in my letter from February 13, 2003).

Examiner has rejected the claims 1-9, 11, 12 and 20 under 35 USC § 102 (b), as being anticipated by Bob et al. (U.S. Pat. 5,259,364).

Herewith I repeatedly adduce the proofs, that the subject matters of claims 1-9, 11, 12 and 20 (from February 13, 2003) of my application have not any common features with U.S. Pat. 5,259,364 (Bob et al.).

Subject of discussion:	Examiner on June 9, 2003:	Applicant on September 3, 2003:
Examiner's statement, that	" As shown on Figure 2, the	The statement of Examiner, that the invaginator according to US Patent 5,259,364 (Bob et al.) "would be gathered on the distal

Application/Control Number: 09/509,377
Art Unit: 3739

Page 8

the invaginator according the US Patent 5,259,364 "would be gathered on the distal end".	invaginator (24) would be gathered on the distal end (as the endoscope tube enters the anus 30) by pleats (52) (col.5, lines 7-9)"	<p>end" do not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none">• About the location of the "distal end" of endoscope one should judge by its objective.• In the US Patent 5,259,364 on the Figure 2, mentioned by Examiner, there is no "distal end" of endoscope.• In the US Patent 5,259,364 on the Figure 2 are shown:<ul style="list-style-type: none">• The distal part of the endoscopic tube (2). There are no any "pleats 52" on it.• The proximal part of the endoscopic tube (2) with "pleats (52)".• In the US Patent 5,259,364 on the Figure 1 are shown:<ul style="list-style-type: none">• the "distal end" of the endoscopic tube (2), that is the head piece (38), which includes the objective,• the distal part of the endoscopic tube (2), that is the section above the break,• the proximal part of the endoscopic tube (2), that is the section below the break.• In the US Patent 5,259,364 on the Figure 1 there is no "pleats (52)":<ul style="list-style-type: none">• on the "distal end", mentioned by Examiner,• on the distal part of the endoscopic tube (2),• on the proximal part of the endoscopic tube (2).• In the US Patent 5,259,364 in column 5, lines 7-9 there is no the statement of Examiner, that "the invaginator would be gathered on the distal end ...".• In the US Patent 5,259,364 in column 5, lines 9-11 is said: "The rearward, in FIG.2 lower end of the supply portion 52 is attached to the rear wall of pressure chamber 50". Thus, the supply or storage portion (52) of the invaginator is always located in the chamber (50), i.e. on the proximal part of the endoscopic tube (2).
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Application/Control Number: 09/509,377
 Art Unit: 3739

Page 9

		<ul style="list-style-type: none"> In my application, in contrast to the US Patent 5,259,364, the unverted end (7) of the cylinder of invaginator (23) is joined with the seal (29) on the distal part of the endoscopic tube (3). That is why the 1,5-meters long store of invaginator (23) is always located on the distal part of the endoscopic tube (3) and is moving together with it.
<p>Examiner's statement, that the invaginator according the US Patent 5,259,364 "defines a gap...".</p>	<p>"As to claims 2, 3 and 8, pleats (52) form a compact hollow cylinder which defines a gap (note space between pleats and endoscope tube in Figure 2) that is maintained under working pressure (col. 5, lines 18-22)."</p>	<p>The statement of Examiner, that in US Patent 5,259,364 (Bob et al.) "pleats (52) form a compact hollow cylinder which defines a gap..." do not square with reality.</p> <p>In reality:</p> <ul style="list-style-type: none"> In US Patent 5,259,364 (see Figure 2) invaginator under the number (52) is represented by the wavy lines. The hollow cylinders are usually represented by straight lines. In US Patent 5,259,364 there are no words "cylinder", "compact", word-combinations "compact cylinder" "compact hollow cylinder" or their synonyms. In US Patent 5,259,364 on Figure 2 there is represented the portion (68) of the pressure chamber (50), limited by the invaginator (52) and the endoscopic tube (2). The presence of a gap between them is ensured not by the compactness of the portion (52), but by the pressure which is feeding in the portion (68) of pressure chamber (50). This pressure must be equal to the pressure in the portion (62) of pressure chamber (50). In US Patent 5,259,364 in case of prevalence of pressure in the portion (62) of pressure chamber (50) over the pressure in the portion (68) of pressure chamber (50), the supply portion (52) of invaginator will adhere to the endoscopic tube (2). In US Patent 5,259,364 in case of prevalence of pressure in the portion (68) of pressure chamber (50) over the pressure in the

Application/Control Number: 09/509,377
 Art Unit: 3739

Page 10

		<p>supply portion (52) of invaginator and the endoscopic tube (2) will appear, but invaginator (24) will adhere to the outer portion (26).</p> <ul style="list-style-type: none"> • In US Patent 5,259,364 in the indicated col. 5, lines 18-22 there is no the statement of Examiner - there is said that the pressurized fluid can be supplied into the portion (68) of the pressure chamber (50). • In US Patent 5,259,364 the working pressure arrives into the portion (68), then into the gap space (44) and then inevitably gets into the intestine (14). The value of working pressure is 0,35 bar. The obvious threat of intestines ruptures by this pressure excludes its use outside the closed cavity. • In my application for formation of compact hollow cylinder (23) from a thin-wall tube the press-mold and high temperature are used (see my letter from February 13, 2003). Formation of the gap (25) is ensured by the die, which diameter exceeds the diameter of the distal part of endoscopic tube (3). By the compactness the hollow cylinder (23) resembles the cigar.
Formulating of claim 4.	<p><i>"As to claim 4, the distal end (38) of the endoscope tube encloses a camera and is thus inherently sealed."</i></p>	<ul style="list-style-type: none"> • In US Patent 5,259,364 the camera chip is installed into the head piece (38). • In my application claim 4 declares the movable seal (29) between the endoscopic tube (3) and the movable unverted end (7) of the invaginator (23). • I thank You for the constructive observation and propose the amended claim 4: <p><i>4. The endoscope according to any of claims 1 to 3, further comprising a seal between the endoscopic tube and the unverted end of said invaginator.</i></p>

Application/Control Number: 09/509,377
Art Unit: 3739

Page 11

Novelty of claim 5.	"As to claim 5, note shell (50)."	<ul style="list-style-type: none">• In my application, due to the internal transverse pleats (48) of the external cover of endoscopic tube (3), as well as due to the widerfings and narrowings (24) of the diameters of cylinder (23), the distal part of endoscope becomes extremely flexible.• In my application the conducting of endoscope with extremely flexible distal part along the rectum (which has a form of ampoule with diameter till 8 cm) into the sigmoid intestine is ensured by the shell (22) (see Fig. 1b, 1c; page 5 lines 38-39).• In my application the shell (22) serves as a sheath-conductor of invaginator (23) and of the distal part of endoscopic tube (3) along the rectum.• In US Patent 5,259,364 there is no neither constructional, nor functional analogue of the shell (22). The object (50) is an out-organ container for the placing of:<ul style="list-style-type: none">• means (70),• roller pairs (72),• annular seal (58),• supply portion (52) of invaginator.• In US Patent 5,259,364 the pressure chamber (50) is not intended for the insertion into rectum. <p>I propose the amended claim 5:</p> <p>5. The endoscope according to any of claims 1 to 3, further comprising a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum.</p>
The main point of the term preservative in claim 6 and part of claim 7.	"As to claims 6 and 7, endoscopic tube (2) inherently comprises an outer protective	<ul style="list-style-type: none">• The preservative is the removable object by its definition.• In my application claims 6 and 7 declares the separate from the endoscopic tube (3) subject matter - the distal preservative (26) (see Figure 1c, 1f; page 7 line 23; page 3 lines 23-25).

Application/Control Number: 09/509,377
 Art Unit: 3739

Page 12

	<i>sheath which meets the limitation of a preservative."</i>	<ul style="list-style-type: none"> • In my application removable preservative (26) isolates the "outer protective sheath" of the endoscopic tube (3), which one was opposed by Examiner to the preservative (26). • In my application the preservative (26) "protect the patient from infections seated in endoscopic tube 3, but tube 3 - from getting contagious during endoscopy." (page 6, lines 27-29). Preservative (26), in combination with others elements, allows repeatedly use the endoscopic tube (3) without disinfection. • In US Patent 5,259,364 there is no preservative of the distal part of endoscopic tube (2).
Novelty of claim 9.	<i>"As to claim 9, note seal (58)."</i>	<ul style="list-style-type: none"> • In US Patent 5,259,364 the seal (58) pressurizes the cavity of uneverted part of invaginator. • In my application seal (13) pressurizes the cavity of everted part of invaginator.
The main point of the term <i>tip</i> and novelty of claim 11.	<i>"As to claim 11, note tip (38)."</i>	<ul style="list-style-type: none"> • The tip, as well as the preservative, is removable object by its definition, for example, the tip of fountain-pen. • In US Patent 5,259,364 the <i>head piece</i> (38) inheres in the tube (2) as a head in a body. • In my application is claimed the tip (6), which, following the preceding analogue, is the "hat" of the head of endoscopic tube (3). • In my application the ability to remove the tip (6) is confirmed by its belonging to the disposable cartridge (see Figures 1c, 1f; page 3, lines 24-25, page 5 lines 8-10).
The main point of the term <i>tip</i> and novelty of claim 12.	<i>"As to claim 12, a protective glass is inherent since a camera for viewing is located in the tip (38)."</i>	<ul style="list-style-type: none"> • The tip, comprising the glass, is removable object by its definition. • In US Patent 5,259,364 there is no tip of endoscopic tube (2). • In US Patent 5,259,364 the <i>head piece</i> (38) is not removable. • In my application in claim 11 is claimed the removable tip (6) of the endoscopic tube (3). • In my application in claim 12 is claimed the removable tip (6) according to claim 11 with the protective glass (33).

		<p>The removable tip (6) with glass (33) according to claim 12 is illustrated on Figure 1f and described on page 3, lines 27-28; page 6, line 38; page 7, line 30).</p> <p>At the same time, taking into account the plurality of variants of interpretations of the term <i>tip</i>, herewith I propose the amended claim 11:</p> <p><i>11. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a removable tip of the endoscopic tube.</i></p>
Formulating of claim 20.	"As to claim 20, the invaginator (24) is cylindrical (i.e. shape of a cylinder/piston unit)."	<ul style="list-style-type: none"> • There is known very many cylindrical objects. Under the cylinder-piston unit is known the concrete construction, which include two inherent elements - cylinder and its hermetic piston. The pressure, which is feeding into cylinder, realizes the job of lineal displacement of piston or cylinder. • In the US Patent 5,259,364 on Fig 1 and 2 the cylindrical invaginator (24) has no piston. • In the US Patent 5,259,364 is not said, that the cylindrical invaginator (24) is the part of cylinder-piston unit. <p>I thank You for the constructive opposition, the amended claim looks like as follows:</p> <ul style="list-style-type: none"> • <i>An endoscope comprising a mechanism for introduction of an endoscopic tube, which is a cylinder-piston unit, connected to the pressure of gas or liquid.</i>

According to item 14.

Subject of discussion:	Examiner on June 9, 2003:	Applicant on September 3, 2003:
Novelty of claim 16.	"Claim 16 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Matasov (SU 1522466) in view of Wilk et	<ul style="list-style-type: none"> • The SU Inventors Certificate No. 1522466 was published after October 3, 1997 (see PCT Gazette 15/1999 from April 15, 1999, publication WO99/17655) and therefore is not prior art, but the component part of my application. • Thus, SU Inventors Certificate No. 1522466 in view of U.S. Pat. 5,396,879 can not discredit the novelty of my invention.

	<i>al. (U.S. Pat. 5,396,879)</i>	
	<i>and further as being unpatentable over Bob et al. in view of Wilk et al."</i>	<ul style="list-style-type: none">• In my application for bending of distal end of the endoscopic tube (3), which repeats the colon curves, there are described the distal drives of traction lines in the shape of classical cylinder-piston unit (claim 16).• Under the cylinder-piston unit is known the classic construction, which includes two inherent elements - cylinder and its hermetic piston. The pressure of fluid, which is feeding into cylinder, realizes the job of lineal displacement of piston or cylinder.• In the U.S.Pat. 5,396,879 is described the distal drive on the base of solenoid, whose tiny force could not ensure the bending of distal end of endoscopic tube (3), which repeats the colon curves.• U.S.Pat. 5,259,364 in view of U.S.Pat. 5,396,879 could not serve as the prior art, because not one from these patents do not include not one of the subject matters of claims of my application. <p>I thank You for the observation, the amended claim looks like as follows:</p> <ul style="list-style-type: none">• <i>The endoscope according to any of claims 1, 2, 3, 7, 8, wherein the endoscopic tube further comprises a distal drives of a traction lines, bending its distal end, which are cylinder-piston units, connected to the pressure of gas or liquid.</i>

According to item 15.

The claim 17 is withdrawn from Claims.

According to item 16.

Examiner asserts, that "Applicant relies heavily on disclosed subject matter".

In this connection I kindly ask to draw the attention, that all three Examiner's statements, concerning the claims 1, 2 and 3, do not square with reality. They are as follows:

1. Statement, that the invaginators according to US Patent 5,259,364 (Bob et al.) "would be gathered on the distal end" of endoscopic tube.

Application/Control Number: 09/509,377
Art Unit: 3739

Page 15

2. Statement, that in US Patent 5,259,364 "*pleats (52) form a compact hollow cylinder which defines a gap*".
3. Statements, that in my application "*the working pressure keeps the gap 25*" and "*the working pressure applied to gap 25*".

The persevering reiteration of these three statements, as well as raising of the fourth unfounded statement – about the publication of SU Inventor's Certificate № 1522466 on July 15, 1989 – I am crediting with the infringement by Examiner of 35 U.S.C. 102 and with illegal grant of US Patent 6,485,409 (Voloshin et al.)

In connection with grant of US Patent 6,485,409, please, note that:

- US Patent 6,485,409 (claims 4, 5, 10) comprises invaginator, gathered on the distal part of endoscope.
- More than one year prior the date of patent application 09/646,941, according which the US Patent 6,485,409 was granted, there was printed publication WO 99/17655 of my application, which describes the endoscope with invaginator on its distal part (see PCT/LV98/00006 page 1 lines 12-14, 18-21, 31-35; page 3 lines 3-4, 17-19, 27-29; page 5, lines 7-9; page 7 lines 38-40; page 9 lines 11-13; page 10, lines 1-3; Fig. 1c, 1e, 1f).
- In accordance with 35 U.S.C. 102 my patent application 09/509,377 comprises the SU Inventor's Certificate No. 1522466 with priority from August 27, 1978, wherein is firstly described the colonoscope with invaginator, gathered on the distal part of endoscopic tube.
- Examiner at the same time has examined the patent application 09/646,941 and my application 09/509,377, as well as made the International Search according the International application No. PCT/IL00/00017, which one had a continuation in the patent application 09/646,941.
- In the course of International search of International application No. PCT/IL00/00017 Examiner opposed to it the US Patent 5,259,364 (Bob et al.), but on November 26, 2002 granted the US Patent 6,485,409. In the US Patent 6,485,409 the US Patent 5,259,364 is mentioned as a cited reference.

Enclosure No. 1



ОФИЦИАЛЬНЫЙ
БЮЛЛЕТЕНЬ
ГОСУДАРСТВЕННОГО
КОМИТЕТА
ПО ИЗОБРЕТЕНИЯМ
И ОТКРЫТИЯМ
ПРИ ГКНТ СССР

ОТКРЫТИЯ ИЗОБРЕТЕНИЯ

ИЗДАЕТСЯ С 1924 ГОДА
ВЫХОДИТ ЧЕТЫРЕ РАЗА В МЕСЯЦ

СВЕДЕНИЯ, ПОМЕЩЕННЫЕ В НАСТОЯЩЕМ БЮЛЛЕТЕНЕ,
СЧИТАЮТСЯ ОПУБЛИКОВАННЫМИ 15 НОЯБРЯ 1989 г.

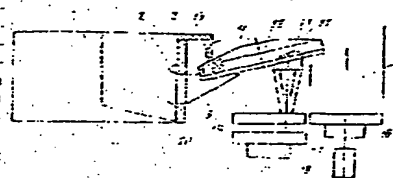
№ 42

Авторские свидетельства на изобретения

Н 05

поставленной под транспортирующим
бером разгрузочной воронкой, в стен-
ке которой выполнены продольные па-
зы для пазов радиодеталей, при этом
вращение транспортирующего ро-
та расположена наклонно, а гнезда
и размещения радиодеталей выполне-
ны в виде цилиндрических отверстий с
рядными фасками, геометрические оси
которых расположены наклонно к плоско-
сти перпендикулярной оси вращения
транспортирующего ротора.

2. Устройство по п. 1, отличаю-
щееся тем, что выходной лоток за-
грузочника выполнен с переменным, уве-
личивающимся в сторону его выходя-
щего конца углом наклона, а дно лотка
выполнено из материалов с различным
коэффициентом трения, при этом на уча-
стках лотка с большим углом наклона
дно лотка выполнено из материала с
меньшим коэффициентом трения по срав-
нению с участками, расположенными
под меньшим углом наклона.



АВТОРСКИЕ СВИДЕТЕЛЬСТВА НА ИЗОБРЕТЕНИЯ
С № 1522442 ПО № 1523037.
НЕ ПОДЛЕЖАЩИЕ ПУБЛИКАЦИИ

State Emblem
of the Soviet Union

THE OFFICIAL
BULLETIN
OF THE STATE
COMMITTEE
OF INVENTIONS
AND DISCOVERIES
AT THE USSR SCST

DISCOVERIES INVENTIONS

IS PUBLISHED SINCE 1924
IS ISSUED FOUR TIMES PER MONTH

THE INFORMATION, PUBLISHED IN PRESENT BULLETIN,
ARE CONSIDERED AS PUBLISHED ON NOVEMBER 15, 1989.

№ 42

Inventor's Certificates for the Inventions

H 05

Text of Inventor's Certificate
not pertinent to matter

Drawing
not pertinent to matter

INVENTOR'S CERTIFICATES FOR THE INVENTIONS
FROM № 1522442 TO № 1523037
ARE NOT TO BE PUBLISHED

Bulletin № 42

I, translator Andra Borisova,
herewith certify, that the above
cited translation from Russian to
English is essentially and
grammatically exact.



These objectives have been achieved by the fact that the claimed endoscope comprises:

- an invaginator made of everting tube, arranged by pleats, formed in the shape of compact hollow cylinder;
- a disposable cartridge combining the invaginator with auxiliary elements;
- 5 ■ an endoscopic tube ensuring fixation of a cartridge;
- a mechanism for introduction of tube, ensuring together with a cartridge insertion of a tube;
- a system of extraction-intrraction of traction lines ensuring bending of the tube's distal end with hydro-manual or pneumo-manual or hydraulic or pneumatic drive;
- 10 ■ a hydraulic or pneumatic intensifier of introduction and extraction of biopsy forceps and hydraulic or pneumatic intensifier of traction line of biopsy forceps.

15 A compact hollow cylinder of the invaginator can be formed of tightly compressed in longitudinal and transverse directions pleats of different forms of an eversible thin-walled tube placed at any angles with the longitudinal axis of an endoscopic tube. The cylinder has recurrent narrowings of an external diameter and widenings of its internal diameter. The stability of diameters depends on the compactness of the cylinder. In one of the embodiments the definite compactness of cylinder ensures the gap with endoscopic tube during their joining and in the process of invagination, in the other – only during the joining. There are possible also the interim variants of embodiments.

20 A disposable sterile cartridge for invagination consists of a shell which has a projection at its proximal end, comprising: an invaginator; a compressed spring; its fixator; a spring distancer in which the distal seal of the endoscopic tube is located, which is joined to an uneverted end of the invaginator; a preservative of the distal part of the endoscopic tube joined at the proximal end to a spring stop, but at the distal end - to the tip with elements for hermetic joining to the endoscopic tube, while on the shell is located a proximal seal of the endoscopic tube with the anal dilator 25 having the channel in its wall, but at the distal end of the shell the everted end of the invaginator is fastened. In addition to elements for hermetical joining to the endoscopic tube, the tip may have a protective glass and a channel for glass washing.

30 An endoscopic tube is supplemented with: - an internal transverse pleats of its external cover; - two air-ducts, the larger one has a lateral opening into the cavity of the proximal seal of the disposable cartridge for invagination, but the smaller - into the cavity of distal and proximal preservatives; - areas for hermetical fixation of preservatives' ends; - a proximal preservative.

35 The mechanism for introduction of the endoscopic tube consists of the cylinder with two pistons, which are interconnected with distancers and an elastic tube. The cylinder is joined with the cartridge for invagination of the endoscopic tube. The cavity between pistons and the elastic tube is connected to the source of pressure or atmosphere (negative pressure) through the cock. The cavity between the distal piston and the proximal seal of the endoscopic tube through the cock is 40 connected to the source of negative pressure or atmosphere (overpressure). The cocks can be placed in the pedals but the spring, which returns pistons to their home position can be located in the cavity between the proximal seal of endoscopic tube and the distal piston.

45 The system of extraction-intrraction of traction lines ensuring management over the endoscopic tube's distal end, has a hydro-manual or pneumo-manual or hydraulic or pneumatic drive and creates suction at the distal end of traction lines. The system includes sources of overpressure and negative

9

I claim:

1. An endoscope, comprising an invaginator, which is a thin-walled tube, compactly placed on the distal part of an endoscopic tube in the shape of small layers and/or pleats.
- 5 2. The endoscope according to claim 1, wherein said invaginator is formed in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube.
3. The endoscope according to claim 2, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
4. The endoscope according to any of claims 1 to 3, further comprising a seal between the endoscopic tube and the uneverted end of said invaginator.
- 10 5. The endoscope according to any of claims 1 to 3, further comprising a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum.
6. The endoscope according to any of claims 1 to 3, further comprising a preservative of the distal part of the endoscopic tube.
- 15 7. An endoscope, comprising a disposable cartridge for the invagination of an endoscopic tube, which has:
 - an invaginator which is a thin-walled tube, formed by small layers and/or pleats in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube,
 - a seal between the endoscopic tube and the uneverted end of said invaginator,
 - 20 • a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum,
 - a preservative of the distal part of the endoscopic tube.
8. The endoscope according to claim 7, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
- 25 9. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a seal of the endoscopic tube, which hermetizes a cavity of the everted part of said invaginator.
10. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a spring of said invaginator.
11. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a removable tip of the endoscopic tube.
- 30 12. The endoscope according to claim 11, wherein said tip further comprises a protective glass.
13. The endoscope according to claim 12, wherein a cavity of said tip communicates with a cavity of intestines.
14. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an anal dilator.
- 35 15. The endoscope according to any of claims 1, 2, 3, 7, 8, wherein the endoscopic tube further comprises a distal drives of traction lines, bending its distal end, which are cylinder-piston units, connected to the pressure of gas or liquid.
- 18 16. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a biopsy forceps, which are a flexible hermetic tube, on the distal end of said tube is placed a piston of a biopsy channel.
- 40 19 17. The endoscope according to claim 16, further comprising a distal drive of traction line of a cutters of said biopsy forceps.
- 20 18. An endoscope comprising a mechanism for introduction of an endoscopic tube, which is a cylinder-piston unit, connected to the pressure of gas or liquid.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,377	08/28/2000	Sergey Matasov		9553

United States Patent and Trademark Office
Commissioner for Patents
Art Unit 3739
Examiner Mr. Leubecker, John P.
P.O. Box 1450, Alexandria VA 22313-1450
United States of America

EXAMINER	
LEUBECKER, JOHN P	
ART UNIT	PAPER NUMBER

3739

DATE MAILED: September 3, 2003

AMENDMENTS

Sir. In response to the Office Action of June 9, 2003, please amend the above-identified application as follows:

In the specification:

1. Please, replace the paragraph, beginning at page 3, line 12 with the following rewritten paragraph:

– A compact hollow cylinder of the invaginator can be formed of tightly compressed in longitudinal and transverse directions pleats of different forms of an eversible thin-walled tube placed at any angles with the longitudinal axis of an endoscopic tube. The cylinder has recurrent narrowings of an external diameter and widenings of its internal diameter. The stability of diameters depends on the compactness of the cylinder. In one of the embodiments the definite compactness of cylinder ensures the gap with endoscopic tube during their joining and in the process of invagination, in the other – only during the joining. There are possible also the interim variants of embodiments. –

In the claims:

Please, replace the claims 1-20 with the following amended claims:

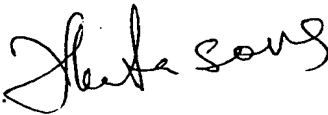
I claim:

1. (Amended) An endoscope, comprising an invaginator, which is a thin-walled tube, compactly placed on the distal part of an endoscopic tube in the shape of small layers and/or pleats.
2. (Amended) The endoscope according to claim 1, wherein said invaginator is formed in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube.
3. (Amended) The endoscope according to claim 2, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
4. (Amended) The endoscope according to any of claims 1 to 3, further comprising a seal between the endoscopic tube and the unverted end of said invaginator.
5. (Amended) The endoscope according to any of claims 1 to 3, further comprising a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum.
6. (Amended) The endoscope according to any of claims 1 to 3, further comprising a preservative of the distal part of the endoscopic tube.

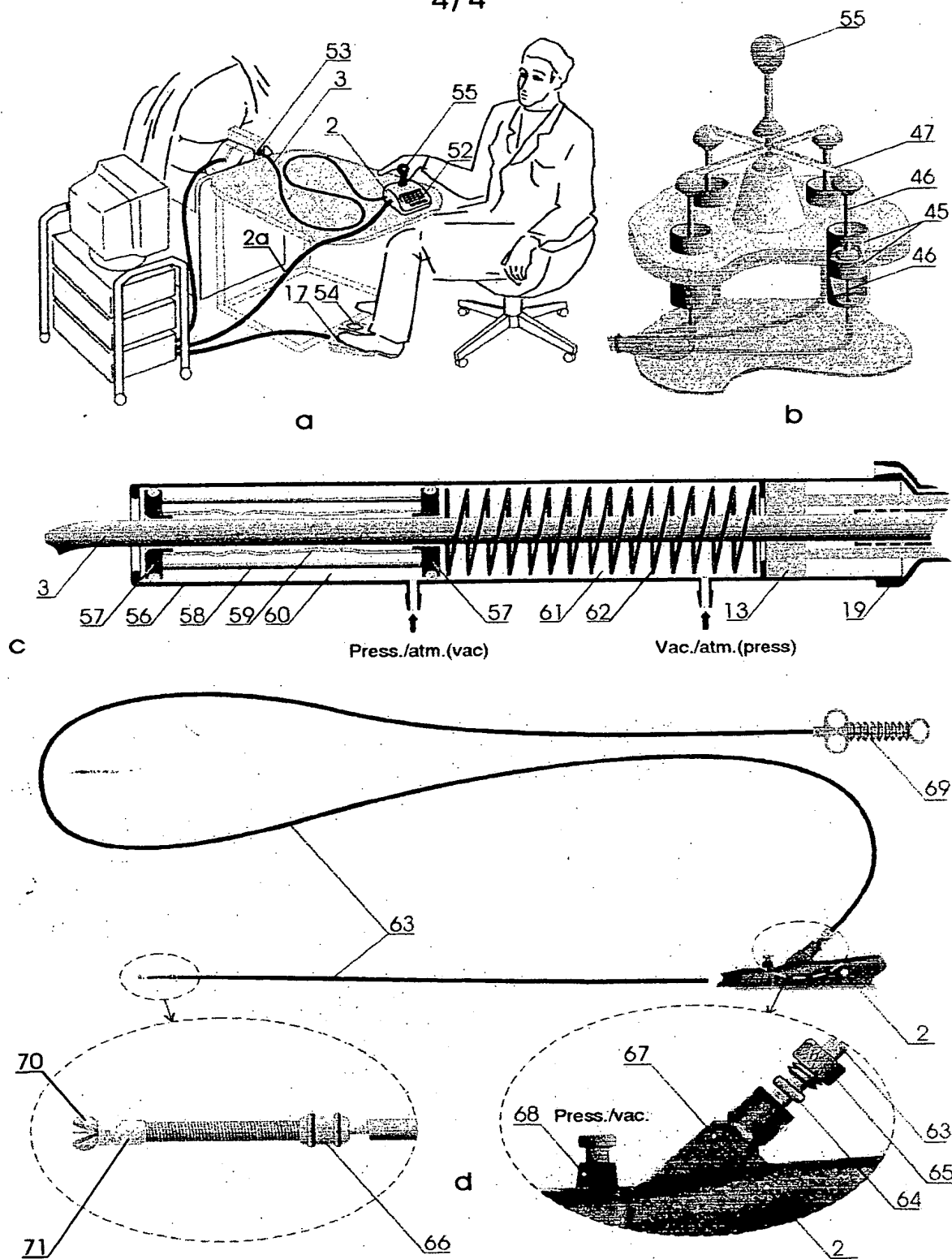
7. (Amended) An endoscope, comprising a disposable cartridge for the invagination of an endoscopic tube, which has:
- an invaginator which is a thin-walled tube, formed by small layers and/or pleats in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube,
 - a seal between the endoscopic tube and the uneverted end of said invaginator,
 - a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum,
 - a preservative of the distal part of the endoscopic tube.
8. (Amended) The endoscope according to claim 7, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
9. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a seal of the endoscopic tube, which hermetizes a cavity of the everted part of said invaginator.
10. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a spring of said invaginator.
11. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a removable tip of the endoscopic tube.
12. (Amended) The endoscope according to claim 11, wherein said tip further comprises a protective glass.
13. (Amended) The endoscope according to claim 12, wherein a cavity of said tip communicates with a cavity of intestines.
14. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an anal dilator.
15. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, wherein the endoscopic tube further comprises a distal drives of traction lines, bending its distal end, which are cylinder-piston units, connected to the pressure of gas or liquid.
16. (Amended) The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a biopsy forceps, which are a flexible hermetic tube, on the distal end of said tube is placed a piston of a biopsy channel.
17. (Amended) The endoscope according to claim 16, further comprising a distal drive of traction line of a cutters of said biopsy forceps.
18. (Amended) An endoscope comprising a mechanism for introduction of an endoscopic tube, which is a cylinder-piston unit, connected to the pressure of gas or liquid.

Faithfully Yours,

Sergey Matasov, M.D.



4/4



Enclosure No. 5

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,377	08/28/2000	Sergey Matasov		9553

United States Patent and Trademark Office
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Examiner Mr. Leubecker, John P.
P.O. Box 1450, Alexandria VA 22313-1450
United States of America

EXAMINER	
LEUBECKER, JOHN P	
ART UNIT	PAPER NUMBER

3739

DATE MAILED: September 3, 2003

REMARKS / ARGUMENTS

Claims 1-20 have been amended.

Examiner has acknowledged that claims 1-20 have now been amended to clear up all Examiners' objections.

Attached hereto is a marked-up version of the changes made to the specification, claims and drawings by the current amendment. The attached page is captioned "Version with markings to show changes made".

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Faithfully Yours,

Sergey Matasov, M.D.



APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,377	08/28/2000	Sergey Matasov		9553

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LEUBECKER, JOHN P	
ART UNIT	PAPER NUMBER

3739

DATE MAILED: September 3, 2003

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

1. Paragraph, beginning at page 3, line 12 with has been amended as follows:

A compact hollow cylinder of the invaginator can be formed of tightly compressed in longitudinal and transverse directions pleats of different forms of an eversible thin-walled tube placed at any angles with the longitudinal axis of an endoscopic tube. The cylinder has recurrent narrowings of an external diameter and widenings of its internal diameter. The stability of diameters depends on the compactness of the cylinder. In one of the embodiments the definite compactness of cylinder ensures the gap with endoscopic tube during their joining and in the process of invagination, in the other – only during the joining. There are possible also the interim variants of embodiments.

In the claims:

Claims 1-20 have been amended by claims 1-20 as follows:

- ~~1. An endoscope, comprising an invaginator of a thin-walled tube, which is compactly placed on the distal part of an endoscopic tube in the shape of small layers and/or pleats.~~
- ~~2. The endoscope according to claim 1, wherein the said invaginator is formed in a hollow cylinder having a gap with the distal part of the endoscopic tube.~~
- ~~3. The endoscope according to claim 2, wherein said gap is keeping under the working pressure in a cavity of invaginator.~~
- ~~4. The endoscope according to any of claims 1 to 3, further comprising a distal seal of the endoscopic tube.~~
- ~~5. The endoscope according to any of claims 1 to 3, further comprising a shell of invaginator for insertion in rectum.~~
- ~~6. The endoscope according to any of claims 1 to 3, further comprising a preservative of the distal part of endoscopic tube.~~
- ~~7. An endoscope, comprising a disposable cartridge for the invagination of endoscopic tube, which has:~~

- ~~an invaginator of a thin-walled tube, formed in the shape of small layers and/or pleats in a hollow cylinder having a gap with the distal part of endoscopic tube,~~
 - ~~a distal seal of endoscopic tube,~~
 - ~~a shell of invaginator for insertion in rectum,~~
 - ~~a preservative of the distal part of endoscopic tube.~~
- ~~8. The endoscope according to claim 7, wherein said invaginator keeps said gap under the working pressure in the cavity of invaginator.~~
- ~~9. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a proximal seal of the endoscopic tube.~~
- ~~10. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a spring of invaginator.~~
- ~~11. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a tip of the endoscopic tube.~~
- ~~12. The endoscope according to claim 11, wherein said tip comprises a protective glass.~~
- ~~13. The endoscope according to claim 12, wherein said tip comprises a channel in the cavity of intestines.~~
- ~~14. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an anal dilator.~~
- ~~15. The endoscope according to claim 14, wherein said anal dilator comprises a channel in the cavity of intestines.~~
- ~~16. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an endoscopic tube with a distal drives of traction lines, bending its distal end, made in the shape of cylinder/piston units.~~
- ~~17. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an endoscopic tube with a distal drives of traction lines, bending its distal end, made in the shape of cylphon.~~
- ~~18. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a biopsy forceps in the shape of a flexible hermetic tube, on the distal end of said tube a piston of biopsy channel is placed.~~
- ~~19. The endoscope according to claim 18, further comprising a distal drive of cutters.~~
- ~~20. An endoscope comprising a mechanism for insertion of endoscopic tube in the shape of cylinder/piston unit.~~

I claim:

1. An endoscope, comprising an invaginator, which is a thin-walled tube, compactly placed on the distal part of an endoscopic tube in the shape of small layers and/or pleats.
2. The endoscope according to claim 1, wherein said invaginator is formed in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube.
3. The endoscope according to claim 2, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
4. The endoscope according to any of claims 1 to 3, further comprising a seal between the endoscopic tube and the uneverted end of said invaginator.
5. The endoscope according to any of claims 1 to 3, further comprising a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum.
6. The endoscope according to any of claims 1 to 3, further comprising a preservative of the distal part of the endoscopic tube.

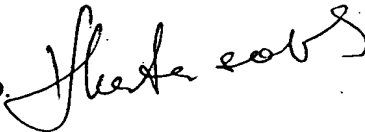
Application/Control Number: 09/509,377
Art Unit: 3739

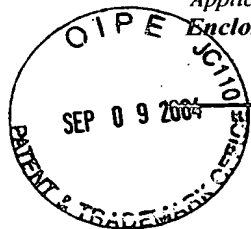
Page 3

7. An endoscope, comprising a disposable cartridge for the invagination of an endoscopic tube, which has:
 - an invaginator which is a thin-walled tube, formed by small layers and/or pleats in the shape of a compact hollow cylinder, which has a gap with the distal part of the endoscopic tube,
 - a seal between the endoscopic tube and the uneverted end of said invaginator,
 - a shell of said invaginator, commensurate to the diameter of said invaginator and to the length of rectum,
 - a preservative of the distal part of the endoscopic tube.
8. The endoscope according to claim 7, wherein said cylinder has a compactness, which ensures said gap in the process of invagination of the endoscopic tube.
9. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a seal of the endoscopic tube, which hermetizes a cavity of the everted part of said invaginator.
10. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a spring of said invaginator.
11. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a removable tip of the endoscopic tube.
12. The endoscope according to claim 11, wherein said tip further comprises a protective glass.
13. The endoscope according to claim 12, wherein a cavity of said tip communicates with a cavity of intestines.
14. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising an anal dilator.
15. The endoscope according to any of claims 1, 2, 3, 7, 8, wherein the endoscopic tube further comprises a distal drives of traction lines, bending its distal end, which are cylinder-piston units, connected to the pressure of gas or liquid.
16. The endoscope according to any of claims 1, 2, 3, 7, 8, further comprising a biopsy forceps, which are a flexible hermetic tube, on the distal end of said tube is placed a piston of a biopsy channel.
17. The endoscope according to claim 16, further comprising a distal drive of traction line of a cutters of said biopsy forceps.
18. An endoscope comprising a mechanism for introduction of an endoscopic tube, which is a cylinder-piston unit, connected to the pressure of gas or liquid.

Faithfully Yours,

Sergey Matasov, M.D.





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